

Claims

[c1] 1. An automotive interior trim assembly comprising:

 a substrate member forming at least part of a structural support of the trim assembly and including a moveable panel integrally formed in said substrate, said panel moveable between an open and closed position;

 a flexible skin overlying at least a portion of said substrate member and integrally coupled to said substrate, said flexible skin and said substrate member defining a cavity having an opening, said cavity opening being accessible when said moveable panel is in the open position, said moveable panel covering said cavity opening when in the closed position; and

 a resilient foam pad positioned within said cavity to provide a soft feel to said trim assembly, said foam pad insertable within said cavity when said panel is in the open position.

[c2] 2. The trim assembly of claim 1 wherein said skin layer is integrally molded to said substrate member.

[c3] 3. The trim assembly of claim 1 wherein said movable panel is integrally molded to said substrate member.

- [c4] 4. The trim assembly of claim 1 wherein said movable panel includes a living hinge, said movable panel attached to said substrate member along said living hinge.
- [c5] 5. The trim assembly of claim 1 wherein said skin layer includes a recess, said movable panel includes a tab, said tab engaging said recess to secure said movable panel in the closed position.
- [c6] 6. The trim assembly of claim 1 configured as an armrest for an automobile.
- [c7] 7. An automotive interior panel having a trim assembly attached thereto, the trim assembly comprising:
 - a substrate member forming at least part of a structural support of the trim assembly and mounted to the door panel, said substrate including a moveable panel integrally coupled to said substrate, said panel moveable between an open and closed position;
 - a flexible skin overlying at least a portion of said substrate member and integrally coupled to said substrate, said flexible skin and said substrate member defining a cavity having an opening, said cavity opening being accessible when said moveable panel is in the open position, said moveable panel covering said cavity opening when in the closed position; and

a resilient foam pad positioned within said cavity to provide a soft feel to said trim assembly, said foam pad insertable within said cavity when said panel is in the open position.

[c8] 8. A method of inserting a resilient foam pad within a cavity of an automotive trim assembly using an insertion tool including a surface for supporting the foam pad, the surface having a plurality of apertures therein for pulling a vacuum, the method comprising:

- placing the foam pad on the surface of the insertion tool;
- pulling a vacuum on the foam pad through the plurality of apertures;
- compressing the foam pad using the vacuum;
- inserting the insertion tool and foam pad through an opening in the cavity while the foam pad is compressed;
- releasing the vacuum when the foam pad is positioned in the cavity;
- expanding the foam pad by releasing the vacuum;
- and
- removing the insertion tool from the cavity.

[c9] 9. The method of claim 8 further comprising:

- placing a moveable panel over the opening of the cavity; and

securing the moveable panel in a closed position.

- [c10] 10. The method of claim 9 wherein placing a moveable panel over the cavity opening comprises pivoting the moveable panel over the opening of the cavity.
- [c11] 11. A method of forming an automotive interior trim assembly comprising:
 - forming a substrate member comprising at least part of a structural support of the trim assembly and including a moveable panel integrally formed in said substrate, said panel moveable between an open and closed position.